



**ANSI/IEC 60974-5-2009**

**American National Standard  
for Arc Welding Equipment**

**Part 5: Wire Feeders**

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*Arc Welding Equipment—  
Part 5: Wire Feeders*

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## FOREWORD FOR U.S. ADOPTION

This American National Standard is an adoption of IEC 60974-5 edition 2, *Arc welding equipment—Part 5: Wire feeders*, and was developed and approved in accordance with procedures set forth by the American National Standards Institute. It is the intention that this American National Standard be a standalone document, replacing the use of IEC 60974-5 in the U.S. As such, any reference in this standard to an IEC 60974 part is understood to mean a reference to the equivalent ANSI/IEC 60974 part, where it exists.

This standard contains all the original text as-is from IEC 60974-5, edition 2, in addition to a number of U.S. Differences to the IEC standard that were identified by Accredited Standards Committee W1, *Requirements for Apparatus Designed for Use in Arc Welding, Plasma Arc Cutting, and Allied Processes*. Each U.S. Difference is found both in a compilation of U.S. Differences following this foreword, and inserted in the appropriate place(s) in the standard relating to the difference. Each insertion is in red text and is marked on its left by three lines (two thin, one thick). Each U.S. Difference is identified with the following format:

[Clause/Subclause Number]DV.[Number of Difference for the Given Clause/Subclause]

Following this format, the example 17.1DV.3 signifies that it is the third U.S. Difference to subclause 17.1.

Suggestions for the improvement of this standard are welcome and should be submitted to the Secretariat of Accredited Standards Committee W1 as follows:

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This standard was processed and approved by the Accredited Standards Committee W1. Committee approval does not necessarily imply that all Committee members voted for its approval. At the time this standard was approved, Accredited Standards Committee W1 consisted of the following members:

John Freudenberg, Chairman  
Wayne Hoffman, Vice Chairman  
Greg Winchester, Secretary

<i>Organization Represented</i>	<i>Name of Representative</i>
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CenterLine (Windsor) Limited	David Beneteau
CSA International	Andrew Krumins
ESAB Welding and Cutting	Charles Aimar
Hypertherm Inc.	Tony Zeller – principal Bill Lynn – alternate
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Miller Electric Manufacturing Company	David Werba – principal Terry Christianson-Plato – alternate Mike Madsen – alternate
Northeast Product Safety Society	John Freudenberg
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### ARC WELDING EQUIPMENT –

#### Part 5: Wire feeders

#### FOREWORD

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International Standard IEC 60974-5 has been prepared by IEC technical committee 26: Electric welding.

This second edition cancels and replaces the first edition published in 2002 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- changes induced by the publication of IEC 60974-1, edition 3;
- IEC 60974-5 is not applicable to spool-on torches that IEC 60974-7 covers (see Clause 1);
- IEC 60974-5 is not applicable to wire feeders which are designed for use by laymen that IEC 60974-6 covers (see Clause 1);
- wire feeders with degree of protection IP23S may be stored, but are not intended to be used outside during precipitation unless sheltered (see 6.2.1 and Table 1);

- withdrawal of voltage limitation for input supply network (see 6.4);
- protective connection provision for welding circuit (see 6.5);
- addition of tilting stability (see 10.5);
- clarification of the definition of the thermal requirement test. The manufacturer gives the maximum load (see Clause 9);
- introduction of rating plate layout for stand-alone wire feeder (see 11.2);
- introduction of new combined symbols for liquid/gas input and output based on IEC 60974-1 (see 13.2).

The text of this standard is based on the following documents:

FDIS	Report on voting
26/364/FDIS	26/368/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

This standard shall be used in conjunction with IEC 60974-1 and IEC 60974-7.

The list of all the parts of IEC 60974, under the general title *Arc welding equipment*, can be found on the IEC web site.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

**ForewordDV.1 Modify the foreword by adding the following:**

The numbering system in this standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

## ARC WELDING EQUIPMENT –

### Part 5: Wire feeders

GlobalDV.1 Throughout this document, replace the phrase "this part of IEC 60974" with "this part of ANSI/IEC 60974"

#### 1 Scope

This part of IEC 60974 specifies safety and performance requirements for industrial and professional equipment used in arc welding and allied processes to feed filler wire.

The wire feeder may be a stand-alone unit which may be connected to a separate welding power source or one where the welding power source and the wire feeder are housed in a single enclosure.

The wire feeder may be suitable for manually or mechanically guided torches.

This part of IEC 60974 is not applicable to spool-on torches that are covered by IEC 60974-7.

This part of IEC 60974 is not applicable to wire feeders which are designed for use by laymen and are covered by IEC 60974-6.

NOTE 1 Typical allied processes are, for example, plasma arc cutting and arc spraying.

NOTE 2 This standard does not include electromagnetic compatibility (EMC) requirements.